

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Canceled)

2. (Canceled)

3. (Canceled)

4. (Canceled)

5. (Currently amended) A driving method for a plasma display panel, described in claim 2, having an address electrode, a first display electrode formed on said address electrode, a second display electrode formed on a surface opposing to said the first display electrode, and a partition wall formed between said first display electrode and said second display electrode and including a metal electrode therein, comprising:

conducting an addressing operation for each sub-field; and

conducting a sustaining operation for display upon basis of a result of said addressing;

wherein, in conducting said sustaining operation, onto said second display electrode is applied pulse voltage differing in polarity and nearly in synchronism with sustain pulse voltage following after second one to be applied onto said first display electrode, thereby forming space charges generated after discharge between said first display electrode and said metal electrode in form of wall charges on said second display electrode; and

wherein in conducting said sustaining operation, onto said address electrode is applied short pulse voltage, being different in polarity, at a time earlier than rise-up of the first sustain pulse voltage to be applied onto said first display electrode.

6. (Currently amended) A driving method for a plasma display panel, described in claim 3, having an address electrode, a first display electrode formed on said

address electrode, a second display electrode formed on a surface opposing to said the first display electrode, and a partition wall formed between said first display electrode and said second display electrode and including a metal electrode therein, comprising:

conducting an addressing operation for each sub-field; and

conducting a sustaining operation for display upon basis of a result of said addressing;

wherein, in conducting said sustaining operation, onto said first display electrode is applied pulse voltage differing in polarity and nearly in synchronism with first sustain pulse voltage to be applied onto said second display electrode, thereby forming space charges generated after discharge between said second display electrode and said metal electrode in form of wall charges on said first display electrode; and

wherein in conducting said sustaining operation, onto said address electrode is applied short pulse voltage, being different in polarity, at a time earlier than rise-up of the first sustain pulse voltage to be applied onto said first display electrode.

7. (Canceled)

8. (Canceled)

9. (Canceled)

10. (Canceled)

11. (Canceled)

12. (Canceled)

13. (Canceled)

14. (Canceled)

15. (Canceled)

16. (Currently amended) A driving method for a plasma display panel having an address electrode, a first display electrode formed on said address electrode, a

second display electrode formed on a surface opposing to said the first display electrode, and a partition wall formed between said first display electrode and said second display electrode and including a metal electrode therein, comprising:

conducting all write-in, respectively, by plural numbers of sub-fields;

conducting an addressing operation;

conducting a sustaining operation; and

conducting an erase operation, wherein,

in conducting said all write-in, a wall charge is formed through initial discharge caused by applying pulse voltages onto said-address electrode and said first display electrode, respectively, and by causing self-erase discharge after said pulse voltages are removed, wall charge is formed by applying voltages onto said address electrode and said first display electrode, respectively;

in conducting said addressing operation, an address pulse voltage is applied onto said address electrode upon basis of the picture signal, ~~nearly~~ in synchronism with scan pulse voltage onto said first display electrode, so as to remove said wall charge without accompanying luminous discharge, thereby selecting a non-luminous cell(s);

in conducting said sustaining operation, onto a luminous cell(s) selected through forming said wall charge, short-pulse voltage is applied onto said address electrode and sustain pulse voltage onto said first display electrode, so as to cause pre-discharge, and thereafter, by means of sustain pulse voltages applied onto said first display electrode and said second display electrode alternately, display luminous discharge is repeated through the initial discharge between said metal electrode grounded to the earth, thereby applying a last sustain pulse voltage onto said second display electrode; and

in conducting said erase operation, only onto said first display electrode, or onto said first display electrode and said address electrode, respectively, thin-line short pulse voltage is applied, thereby causing discharge for erasing the wall charge between said metal electrode, said address electrode, and said second display electrode.

17. (Previously presented) A driving method for a plasma display panel, as described in the claim 16, wherein, in conducting said all write-in, onto said address electrode and said first display electrode are applied the short-pulse voltages being different

in polarity for generating the space charge through the initial discharge and long-pulse voltages being different in polarity for forming the wall charge, respectively, generating self-erase discharge after removal of said long-pulse voltages, voltages are applied onto said address electrode and said first display electrode, respectively, thereby forming the wall charge.

18. (Previously presented) A driving method for a plasma display panel, as described in the claim 17, wherein, in conducting said all write-in, a sum of the voltages, being applied onto said address electrode and said first display electrode, respectively, in absolute value thereof, is made larger in case of said short-pulse voltage than that in case of said long-pulse voltage.

19. (Previously presented) A driving method for a plasma display panel, as described in the claim 17, wherein at least one of said plural numbers of sub-fields causes the space charge with using said short-pulse voltage in conducting said all write-in, while in remaining sub-field(s) using no such the short-pulse voltage is shared in common the space charge, which is caused by said thin-line short pulse voltage applied only onto said first display electrode, or onto said first display electrode and said address electrode, respectively, in conducting said erase operation.

20. (Currently amended) A driving method for a plasma display panel, as described in the claim 16, wherein in conducting said sustaining operation, during repetition of the display luminous discharge through the initial discharge between said metal electrode grounded to the earth by means of the sustain pulse voltage, being applied onto said first display electrode and said second display electrode, alternately,

onto said second display electrode is applied pulse voltage, being different in polarity and ~~nearly~~ in synchronism with the sustain pulse voltage to be applied onto said first display electrode, thereby forming the space charge generated after the discharge between said address electrode or said metal electrode and said first display electrode, in form of wall charge on said second display electrode, and

onto said first display electrode is applied pulse voltage, being different in polarity and ~~nearly~~ in synchronism with the sustain pulse voltage to be applied onto said

second display electrode, thereby forming the space charge generated after the discharge between said second display electrode and said address electrode, in form of wall charge on said first display electrode.

21. (Previously presented) A plasma display apparatus, comprising:
 - a front substrate;
 - a reverse-side substrate;
 - a partition wall;
 - dielectric layers, each being formed on said front surface, said reverse side surface and said partition wall, respectively;
 - a fluophor layer, being formed within a region surrounded by said front surface, said reverse-side surface and said partition wall; and
 - electrodes for bringing said fluophor layer to generate ultraviolet rays therefrom, including an address electrode, a first electrode crossing over said address electrode, a second electrode, and a third electrode, wherein
 - a first period for conducting an addressing operation for each sub-field and a second period for conducting a sustaining operation for display upon basis of a result of said addressing,
 - during said first period, an electric potential is generated between said address electrode and said first electrode;
 - during said second period, a sustain pulse voltage is generated across one of those electrodes, being defined between said first electrode and said second electrode or between said second electrode and said third electrode, in a form of potential difference therebetween, while generating a potential difference upon other of those electrodes, being reverse to polarity of said sustain pulse voltage, during said sustain pulse voltage is generated.

22. (Previously presented) The plasma display apparatus, as defined in the claim 21, wherein the potential difference is generated between said first electrode and said second electrode and between said second electrode and said third electrode, alternately, in the form of said sustain voltage.

23. (Previously presented) The plasma display apparatus, as defined in the claim 21, wherein a pulse is applied onto said address electrode, being same in polarity to that which is applied onto said first electrode, during the period when the potential difference is generated between said first electrode and said second electrode in the form of said sustain pulse voltage.

24. (Previously presented) The plasma display apparatus, as defined in the claim 21, wherein a wall charge is increased due to the potential difference, which is generated between said second electrode and said third electrode.

25. (Previously presented) The plasma display apparatus, as defined in the claim 21, wherein said second electrode is a metal partition wall, on a side surface of which is formed a dielectric layer.

26. (Previously presented) The plasma display apparatus, as defined in the claim 21, wherein during said second period:

a negative sustain pulse voltage is applied onto said first electrode and said second electrode, alternately, while conduction an anode drive upon said second electrode; and

a positive voltage is applied onto other electrode, on which no said sustain pulse voltage is applied, during the period when said sustain pulse voltage is applied onto either one of said first electrode and said third electrode.

27. (Previously presented) The plasma display apparatus, as defined in the claim 21, wherein during said second period:

a negative sustain pulse voltage is applied onto said first electrode;

an anode drive is conducted upon said second electrode; and

a positive voltage is applied onto said third electrode during a period when said sustain pulse voltage is applied onto said first electrode.

28. (Previously presented) The plasma display apparatus, as defined in the claim 21, wherein during said second period:

a first sustain pulse of negative sustain pulse voltage is applied onto said first electrode;

an anode drive is conducted upon said second electrode; and

a positive voltage is applied onto said third electrode during a period when said sustain pulse voltage is applied onto said first electrode.

29. (Previously presented) The plasma display apparatus, as defined in the claim 21, wherein during said second period:

sustain pulse voltages including a second one and those following thereafter are applied onto said first electrode as the sustain pulses thereof;

an anode drive is conducted upon said second electrode; and

a positive voltage is applied onto said first electrode during a period when said sustain pulse voltage is applied onto said third electrode.